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BULLETIN
OF THE
TORREY BOTANICAL CLUB.

Vol. VII.] New York, July, 1880. **[No. 7.**

§ 55. **Proceedings of the Torrey Club.**—The regular meeting of the Club was held at the College of Pharmacy, Tuesday evening, July 13th, the Vice-President in the chair, and ten members and three visitors in attendance.

There were exhibited a large number of species of *Chenopodiaceae*, from Staten Island, by Mr. Wright; specimen of tetramerous *Iris versicolor*, L., from Long Island by Mr. Schrenk; and a number of specimens of three-winged fruit of *Negundo aceroides*, Moench., and *Acer Pseudo-Platanus*, L., from Central Park. Mr. Schrenk reported that he had detected *Danthonia sericea*, Nutt, at Little Neck, L. I.

Mr. Brown read a list of ballast plants that he had discovered this season in the vicinity of New York, one of which (*Roubieva multifida*, Moq.) he exhibited. The complete list will be published hereafter.

Mr. Bicknell stated that he had recently detected *Melanthium Virginicum*, L., just north of the City limits. Mr. O. R. Willis reported the interesting discovery by him of *Narthecium ossifragum*, Huds., var. *Americanum*, Gray, at several places within one and a half miles of the village of White Plains, Westchester County. This plant has hitherto been found in the pine barrens of New Jersey only.

The subject of parasitic plants was again discussed, and Mr. Schrenk exhibited a glass slide on which were mounted the root fibres of the different plants among which the roots of *Monotropa uniflora*, L., had been found nestling—although no connection had been observed between them, These fibres were covered with brown fungus hyphae which answered to the description, given by other investigators, of the "byssoid fungi" or fibrous processes that envelop the roots of the *Monotropa Hypopitys*, L., and appear to communicate with the plants near which the latter grows. Mr. James Ware, of Stapleton, S. I., was elected an active member. One name was proposed for corresponding membership.

§ 56. **Field Meetings of the Torrey Club.**—The first field meeting of the season was held at West New Brighton, S. I., and the swamps about Clove Lake. The persons who took part in the excursion were Misses Beckwith, Dubois and Brown, and Messrs. Gross, Wright, Schoeny, Wilber, Britton and Gerard. Before proceeding to the woods the party visited the greenhouses and gardens of a veteran member of the Club, Mr. Wm. Charlton, and were afterwards entertained at a bountiful collation prepared by his hospitable wife. No new stations were discovered for plants already reported. The plant recorded as *Viola delphinifolia*, Nutt., in the "Flora of Richmond County," was found in abundance, and, on examination, discovered to be one of the many forms of that protean species, *V. cucullata*, Ait. *Viola striata*, Ait., was found here in profusion.

On May 22d, the Club visited Williams' Bridge, and followed the course of the Bronx river southward. The persons present were Misses Dubois and Adam, and Messrs. Leggett, Britton, Wilber, Schoeny, Gross and Gerard. Here new stations were discovered for the following plants : *Staphylea trifolia*, L., *Allium tricoccum*, Ait., and *Galium Mollugo*, L., along R. R., south of depot ; *Arisaema*, *Dracontium*, Schott, in a swamp near the Bronx river ; and *Isoetes riparia*, Engelm., on the river shore about opposite Fordham station.

On May 29th, five members of the Club—Messrs. Rudkin, Bower, Britton, Schrenk and Schoeny—visited the pine barrens, and explored the region lying between New Egypt and Manchester, and afterwards proceeded to Tom's River. At New Egypt, *Viola tricolor*, L. var. *arvensis*, DC., was found in some abundance, and seemingly a native. *Anthemis arvensis*, L. was observed to be rapidly spreading and becoming very common in the " Pines."

On June 5th, the field meeting was held at New Dorp, S. I., Messrs. Rudkin, Bower, Britton and Gerard being present. No new plants nor no new stations were discovered on this excursion.

§ 57. The Geological History of the North American Flora,

by J. S. NEWBERRY.

[*Abstract of a lecture delivered before the Torrey Botanical Club.*]

America is called the New World, but, so far as we now know, that portion of North America which lies immediately north of the St. Lawrence and the Great Lakes, with its southern extension, the Adirondack region, is the oldest portion of the earth's surface. This land area, sometimes wider, sometimes narrower, and gradually increasing, has continued to exist throughout all recorded geological time ; hence it is not surprising that we have here the most complete and connected history of plant life. A brief synopsis of this history I shall attempt to give you this evening.

Previous to the Cambrian and Silurian ages, and the beginning of the *legible* life-record of the globe, a broad continental area occupied what is now the eastern half of North America. Whether this land bore any terrestrial vegetation we do not yet know. The Archaean rocks which compose it contain quantities of carbonaceous matter, now graphite, undoubtedly derived from plant tissue; but whether the tissue of land plants or seaweeds we have no means of knowing, in consequence of the complete metamorphism of the strata.

In the Lower Silurian age this old continent sank, and the sea flowed in over a large part of its surface. The beach formed by this invading sea we now call the Potsdam sandstone. Later deposits, which are like this, the direct wash of the land, frequently contain the impressions of land plants in abundance. In the Potsdam sandstone we have found none, and therefore we may infer that, if not absent, they were few in this age. Marine plants however were abundant, and the layers of the Potsdam sandstone are in a thousand places covered thickly with a network of interlacing stems of seaweeds, or rather their casts, because the vegetable tissue has all disappeared.

The limestones of this age—the organic sediments spread by the Silurian ocean over all the area it submerged—contain also abund-